

Re: close() on a closed file descriptor in Visual Studio 8

Source: <http://www.tech-archive.net/Archive/VC/microsoft.public.vc.language/2006-04/msg00214.html>

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On 6 Apr 2006 14:54:40 -0700, "mk" <meshko@xxxxxxxx> wrote:

Hi,
normally closing a closed file descriptor is not a big deal, it just returns EBADF and everybody goes on with their lives. In Visual Studio 8 it seems to throw up an assertion. I'm dealing with some code that just goes through the file descriptor table and closes them all (pretty typical thing to do in Unix world and OK thing to do on Windows... until now). Would appreciate any ideas on how to change the behaviour of close() to relax and not assert it. Is there any way to tell whether fd is open (without digging into internal data structures of CRT)?

Well, if you look into the CRT, you'll find the _close source does the following:

```
if ( _osfile(fh) & FOPEN )
```

Unfortunately, neither _osfile nor FOPEN appear to be defined in the public header files. But there may still be hope.

To suppress the assertion, see _CrtSetReportHook2 and the very important:

Report Hook Functions

[http://msdn2.microsoft.com/en-us/library/74kabxyx\(VS.80\).aspx](http://msdn2.microsoft.com/en-us/library/74kabxyx(VS.80).aspx)

To fix the problem in release mode, read the new documentation for _close:

[http://msdn2.microsoft.com/en-us/library/5fzwd5ss\(VS.80\).aspx](http://msdn2.microsoft.com/en-us/library/5fzwd5ss(VS.80).aspx)

<q>

This function validates its parameters. If fd is a bad file descriptor, the invalid parameter handler is invoked, as described in Parameter Validation.

If execution is allowed to continue, the function returns -1 and errno is set to EBADF.

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In particular, follow it to:

Parameter Validation

[http://msdn2.microsoft.com/en-us/library/ksazx244\(VS.80\).aspx](http://msdn2.microsoft.com/en-us/library/ksazx244(VS.80).aspx)

And finally use:

`_set_invalid_parameter_handler`

[http://msdn2.microsoft.com/en-us/library/a9yf33zb\(VS.80\).aspx](http://msdn2.microsoft.com/en-us/library/a9yf33zb(VS.80).aspx)

These methods will work. Hopefully, someone will find a `_closeall` function comparable to `_fcloseall` that I missed and save you all this trouble. Of course, the best thing would be to fix the code so it doesn't need to iterate the fds. (How do you know how big the Unix-style fd table is, anyway?)

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Visual C++ MVP

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